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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,894	09/26/2003	Ulrich Bonne	H0004785 (1100.1206101)	9559

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EXAMINER

FITZGERALD, JOHN P

ART UNIT PAPER NUMBER

2856

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,894

Applicant(s)

BONNE ET AL.

Examiner

John P. Fitzgerald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/28/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In view of applicant's amendment filed 08 December 2004, objections to the specification are withdrawn. Cancellation of claims 8-21 is acknowledged.

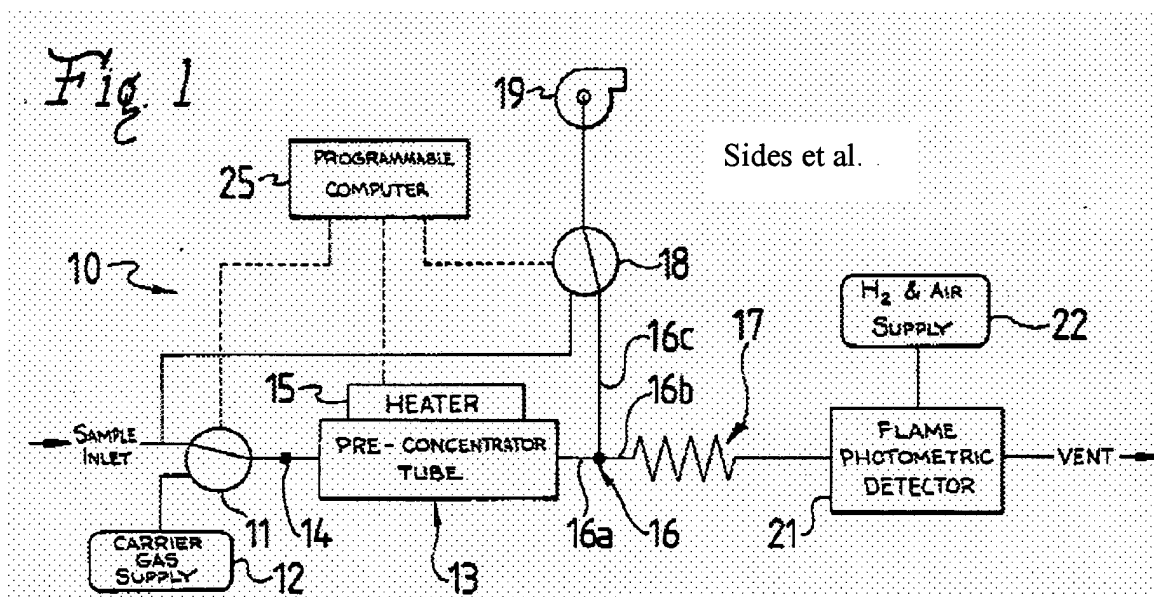
Response to Arguments

2. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,805,441 to Sides et al. and US 5,196,039 to Phillips et al. Sides et al. disclose a fluid analyzer (Figs. 1-5) having a pump (19), a concentrator (13) connected to the pump; and a separator (17) connected to the concentrator; wherein the concentrator has a temperature controlled heater (15) controlled by a controlling mechanism (25) connected to the elements, wherein the heater operates on a tube/channel (note: Merriam-Webster's Dictionary, 10th Edition defines channel: *a usually tubular enclosed passage*) within which the fluid to be analyzed is flowing and a detector (21) connected to the separator (i.e. 'second detector' as recited in claim 4). Sides et al. do not expressly disclose a fluid analyzer having a continuous heater film in the channel wherein the film generates a moving heat zone within the channel and wherein the rate movement of the heat zone is approximately the same as the fluid moving through the channel (as recited in claims 1-3). Phillips et al. disclose a fluid analyzer (Figs. 1-4e) having many of the recited elements

including a concentrator having a heater that comprises a “thin electrically conductive film” or “conductive wall tube,” wherein the resistance (i.e. heating) may be varied by varying the thickness of the electrically conductive film, and a “thermal gradient in time” can be created by varying the electric current through the electrically conductive film as a function of time (i.e. thermal/electrical pulses) (Phillips et al.: col. 12, lines 51-58, claim 20), and thus capable of creating “moving temperature/heat/gradient zones” wherein the rate of movement is approximately the same as the fluid moving through the channel (as recited in claims 2 and 3) (Phillips et al.: col. 19, lines 25-30 and col. 20, lines 19-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a film heater as taught by Phillips et al., modifying the fluid analyzer disclosed by Sides et al., thus providing a fluid analyzer to provide “thermal modulation to accumulate and focus, refocus and then accelerate a concentration pulse in the carrier stream” without the loss of orthogonality (Phillips et al.: col. 4, lines 55-69).



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5. Claims 4-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,805,441 to Sides et al. and US 5,196,039 to Phillips et al. as applied to claim 1 above, and further in view of US 6,386,014 to Butch and US 3,589,171 to Haley. Sides et al. and Phillips et al. disclose a fluid analyzer having all of the elements previously recited, including a controller (25) connected to the various elements (as recited in claim 7) and wherein a detector (21) connected to the separator (i.e. 'second detector' as recited in claim 4). Sides et al. and Phillips et al. do not expressly disclose additional detectors at locations recited in claims 4-6, including a flow sensor and thermal conductivity detector. Butch discloses a fluid analyzer (Figs. 1-7) having a plurality of detectors, including flow (440) and pressure detector. Haley discloses the employment of a thermal conductivity detector in a fluid analyzer (Figs. 1-4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any type of detector desired at various locations of the interacting elements of the flow analyzer, as taught by Butch and Haley, thus providing monitoring of the fluid's physical state within the various stages of the analyzer (Butch: col. 9, line 61 to col. 10, line 21), and is well within the design choice of one having ordinary skill in the art to monitor/detect the fluid moving through the analyzer.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO form 892 for prior art relevant to the instant invention.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to

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reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JF

03/10/2005



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